

Protective claims

1. A hair-treatment agent with a content of a combination of
 - 5 (A) a terpolymer constructed from vinylpyrrolidone, methacrylamide and vinylimidazole and
 - (B) at least one active ingredient or additive chosen from viscosity-modifying substances, haircare substances, hair-setting substances,
10 silicone compounds, photoprotective substances, oils, waxes, preservatives, pigments, soluble dyes, particulate substances, and surfactantsin a suitable cosmetic base.
- 15 2. The agent as claimed in claim 1, characterized in that the terpolymer (A) is present in an amount of from 0.1 to 10% by weight and that the viscosity-modifying substance present in an amount of from
20 0.1 to 5% by weight is a thickening polymer, chosen from copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, and at least one second monomer type, which is chosen from esters of
25 acrylic acid and ethoxylated fatty alcohol; crosslinked polyacrylic acid; crosslinked copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, and at least one second monomer type, which is chosen
30 from esters of acrylic acid with C10- to C30-alcohols; copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, and at least one second monomer type, which is chosen from esters of itaconic acid and ethoxylated fatty alcohol; copolymers of at
35 least one first monomer type, which is chosen from acrylic acid and methacrylic acid, at least one second monomer type, which is chosen from esters of itaconic acid and ethoxylated C10- to C30-

alcohol and a third monomer type, chosen from C1-
to C4-aminoalkyl acrylates; copolymers of two or
more monomers chosen from acrylic acid, meth-
acrylic acid, acrylic esters and methacrylic
5 esters; copolymers of vinylpyrrolidone and ammo-
nium acryloyldimethyltaurate; copolymers of ammo-
nium acryloyldimethyltaurate and monomers chosen
from esters of methacrylic acid and ethoxylated
fatty alcohols; hydroxyethylcellulose; hydroxypro-
10 pylcellulose; hydroxypropylguar; glyceryl poly-
acrylate; glyceryl polymethacrylate; copolymers of
at least one C2-, C3- or C4-alkylene and styrene;
polyurethanes; hydroxypropyl starch phosphate;
polyacrylamide; copolymer of maleic anhydride and
15 methyl vinyl ether crosslinked with decadiene;
carob seed flour; guar gum; xanthan; dehydro-
xanthan; carrageenan; karaya gum; hydrolyzed corn
starch; copolymers of polyethylene oxide, fatty
alcohols and saturated methylenediphenyl diiso-
20 cyanate.

3. The agent as claimed in one of the preceding
claims, characterized in that the haircare or
hair-setting substance present is a polymer with
25 anionic or anionizable groups, chosen from
terpolymers of acrylic acid, ethyl acrylate and
N-tert-butylacrylamide; crosslinked or uncross-
linked vinyl acetate/crotonic acid copolymers;
terpolymers of tert-butyl acrylate, ethyl acrylate
30 and methacrylic acid; sodium polystyrenesulfonate;
copolymers of vinyl acetate, crotonic acid and
vinyl propionate; copolymers of vinyl acetate,
crotonic acid and vinyl neodecanoate; aminomethyl-
propanol acrylate copolymers; copolymers of vinyl-
35 pyrrolidone and at least one further monomer
chosen from acrylic acid, methacrylic acid,
acrylic esters and methacrylic esters; copolymers
of methyl vinyl ether and maleic monoalkyl esters;
aminomethylpropanol salts of copolymers of allyl

- methacrylate and at least one further monomer chosen from acrylic acid, methacrylic acid, acrylic esters and methacrylic esters; crosslinked copolymers of ethyl acrylate and methacrylic acid; 5 copolymers of vinyl acetate, mono-n-butyl maleate and isobornyl acrylate; copolymers of two or more monomers chosen from acrylic acid, methacrylic acid, acrylic esters and methacrylic esters, copolymers of octylacrylamide and at least one 10 monomer chosen from acrylic acid, methacrylic acid, acrylic esters and methacrylic esters; polyesters of diglycol, cyclohexanedimethanol, isophthalic acid and sulfoisophthalic acid.
- 15 4. The agent as claimed in one of the preceding claims, characterized in that the haircare or hair-setting substance present is a polymer with cationic or cationizable groups chosen from 20 cationic cellulose derivatives of hydroxyethyl-cellulose and diallyldimethylammonium chloride; cationic cellulose derivatives of hydroxyethyl-cellulose and with trimethylammonium substituted epoxide; poly(dimethyldiallylammonium chloride); 25 copolymers of acrylamide and dimethyldiallyl-ammonium chloride; quaternary ammonium polymers formed by the reaction of diethyl sulfate and a copolymer of vinylpyrrolidone and dimethylamino-ethyl methacrylate; quaternary ammonium polymers of methylvinylimidazolium chloride and vinyl- 30 pyrrolidone; polyquaternium-35; polymer of trimethylammonium-ethyl methacrylate chloride; polyquaternium-57; dimethylpolysiloxanes terminally substituted by quaternary ammonium groups; copolymer of vinylpyrrolidone, dimethylaminopropyl- 35 methacrylamide and methacryloylaminopropyl-lauryldimethylammonium chloride; chitosan and salts thereof; hydroxyalkylchitosans and salts thereof; alkylhydroxyalkylchitosans and salts thereof; N-hydroxyalkylchitosan alkyl ethers;

N-hydroxyalkylchitosan benzyl ethers; copolymer of vinylcaprolactam, vinylpyrrolidone and dimethylaminoethyl methacrylate; copolymers of vinylpyrrolidone and dimethylaminoethyl methacrylate, 5 copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide; polyesters or oligoesters constructed from at least one first monomer type which is chosen from hydroxy acid substituted by at least one quaternary ammonium 10 group.

5. The agent as claimed in one of the preceding claims, characterized in that the haircare or hair-setting substance present is a zwitterionic 15 and/or an amphoteric polymer chosen from copolymers of octylacrylamide, acrylic acid, butylaminoethyl methacrylate, methyl methacrylate and hydroxypropyl methacrylate; copolymers of lauryl acrylate, stearyl acrylate, ethylamine oxide methacrylate and at least one monomer chosen from 20 acrylic acid, methacrylic acid, acrylic esters and methacrylic esters; copolymers of methacryloyl-ethylbetaine and at least one monomer chosen from methacrylic acid and methacrylic esters; 25 copolymers of acrylic acid, methyl acrylate and methacrylamidopropyltrimethylammonium chloride; oligomers or polymers preparable from quaternary croton betaines or quaternary croton betaine esters.

30 6. The agent as claimed in one of the preceding claims, characterized in that the haircare or hair-setting substance present is a nonionic polymer chosen from polyvinylpyrrolidone, polyvinylcaprolactam, vinylpyrrolidone/vinyl acetate 35 copolymers, polyvinyl alcohol, isobutylene/ethylmaleimide/hydroxyethylmaleimide copolymer; copolymers of vinylpyrrolidone, vinyl acetate and vinyl propionate.

7. The agent as claimed in one of the preceding claims, characterized in that at least one silicone compound is present chosen from cyclic dimethylsiloxanes, linear polydimethylsiloxanes, 5 block polymers of polydimethylsiloxane and polyethylene oxide and/or polypropylene oxide, polydimethylsiloxanes with terminal or lateral polyethylene oxide or polypropylene oxide radicals, polydimethylsiloxanes with terminal hydroxyl 10 groups, phenyl-substituted polydimethylsiloxanes, silicone emulsions, silicone elastomers, silicone waxes, silicone gums and amino-substituted silicones.
- 15 8. The agent as claimed in one of the preceding claims, characterized in that at least one photoprotective substance is present chosen from 2-ethylhexyl 4-methoxycinnamate, methyl methoxycinnamate, 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid and polyethoxylated p-aminobenzoates. 20
9. The agent as claimed in one of the preceding claims, characterized in that at least one oil or wax is present chosen from paraffin waxes, 25 polyolefin waxes, wool wax, wool wax alcohols, candelilla wax, olive wax, carnauba wax, Japan wax, apple wax, hydrogenated fats, fatty acid esters, fatty acid glycerides, fatty acid triglycerides, mineral oils, isoparaffin oils, paraffin 30 oils, squalane, sunflower oil, coconut oil, castor oil, lanolin oil, jojoba oil, corn oil, soybean oil.
10. The agent as claimed in one of the preceding 35 claims, characterized in that at least one haircare or hair-setting substance is present chosen from betaine; panthenol; panthenyl ethyl ether; sorbitol; protein hydrolysates; plant extracts; A-B block copolymers of alkyl acrylates

and alkyl methacrylates; A-B block copolymers of alkyl methacrylates and acrylonitrile; A-B-A block copolymers of lactide and ethylene oxide; A-B-A block copolymers of caprolactone and ethylene oxide; A-B-C block copolymers of alkylene or alkadiene compounds, styrene and alkyl methacrylates; A-B-C block copolymers of acrylic acid, styrene and alkyl methacrylates; star-shaped block copolymers; hyperbranched polymers, dendrimers, intrinsically electrically conductive 3,4-polyethylenedioxythiophenes and intrinsically electrically conductive polyanilines.

11. The agent as claimed in one of the preceding claims, characterized in that at least one surfactant is present chosen from addition products of from 2 to 30 mol of ethylene oxide and/or 1 to 5 mol of propylene oxide onto C8- to C22-fatty alcohols, addition products of from 2 to 30 mol of ethylene oxide and/or 1 to 5 mol of propylene oxide onto C12- to C22-fatty acids, addition products of from 2 to 30 mol of ethylene oxide and/or 1 to 5 mol of propylene oxide onto alkyl phenols having 8 to 15 carbon atoms in the alkyl group, C12- to C22-fatty acid mono- and diesters of addition products of from 1 to 30 mol of ethylene oxide onto glycerol, addition products of from 5 to 60 mol of ethylene oxide onto castor oil or onto hydrogenated castor oil, mono-, di- or triesters of phosphoric acid with addition products of from 2 to 30 mol of ethylene oxide onto C8- to C22-fatty alcohols, esters of sucrose and one or two C8- to C22-fatty acids, esters of sorbitan and one, two or three C8- to C22-fatty acids and a degree of ethoxylation of from 4 to 20, polyglyceryl fatty acid esters of one, two or more C8- to C22-fatty acids and polyglycerol having 2 to 20 glyceryl units, alkyl glycosides, C8-22-alkyldimethylbenzylammonium compounds,

C8-22-alkyltrimethylammonium compounds, C8-22-alkyldimethylhydroxyethylammonium compounds, di(C8-22-alkyl)dimethylammonium compounds, C8-22-alkylpyridinium salts, C8-22-alkylamidoethyltrimethylammonium ether sulfates, C8-22-alkylmethylaniline oxides, C8-22-alkylaminoethylmethylaniline oxides.

12. The agent as claimed in one of the preceding claims, characterized in that a preservative is present chosen from phenoxyethanol, benzyl paraben, butyl paraben, ethyl paraben, isobutyl paraben, isopropyl paraben, methyl paraben, propyl paraben, methyldibromoglutaronitrile, DMDM hydantoin.

13. The agent as claimed in one of the preceding claims, characterized in that at least one pigment is present chosen from titanium dioxide (CI 77891), black iron oxide (CI 77499), yellow iron oxide (CI 77492), red and brown iron oxide (CI 77491), manganese violet (CI 77742), ultramarine (CI 77007), chromium oxide hydrate (CI 77289), Prussian blue (CI 77510), bismuth oxychloride (CI 77163), carmine (cochineal), pearlescent and colored pigments based on mica which are coated with a metal oxide or a metal oxychloride, such as titanium dioxide or bismuth oxychloride, and optionally further color-imparting substances, such as iron oxides, iron blue, ultramarine or carmine and where the color is determined by varying the layer thickness.

14. The agent as claimed in one of the preceding claims, characterized in that at least one particulate substance is present chosen from silica, silicates, aluminates, clay earths, mica, insoluble metal salts, metal oxides, minerals and insoluble polymer particles.

15. The agent as claimed in one of claims 1 to 14,
characterized in that it is in the form of a gel,
in the form of a viscous lotion or in the form of
5 a spray gel which is sprayed with a mechanical
device, comprises at least one thickening polymer
according to claim 2 and has a viscosity of at
least 250 mPa s (measured using a Bohlin rheometer
CS, measurement body C25 at 25°C and a shear rate
10 of 50 s⁻¹).
16. The agent as claimed in one of claims 1 to 14,
characterized in that it is in the form of an O/W
emulsion, a W/O emulsion or a microemulsion, and
15 comprises at least one oil or wax according to
claim 9, and at least one surfactant according to
claim 11.
17. The agent as claimed in one of claims 1 to 14,
20 characterized in that it is in the form of a spray
product and is either in combination with a
mechanical pump spray device or in combination
with at least one propellant chosen from propane,
butane, dimethyl ether and fluorinated hydro-
25 carbons.
18. The agent as claimed in one of claims 1 to 14,
characterized in that it is in the form of a
foamable product in combination with a device for
30 foaming, comprises at least one foam-forming
surfactant or at least one foam-forming polymer
and is either in combination with a mechanical
pump foam device or in combination with at least
one propellant chosen from propane, butane,
35 dimethyl ether and fluorinated hydrocarbons.
19. The agent as claimed in one of claims 1 to 14,
characterized in that it is in the form of a hair
wax.

20. The agent as claimed in one of claims 1 to 14, characterized in that it is in the form of a foamable product in combination with a device for foaming, comprises at least one foam-forming surfactant or at least one foam-foaming polymer and is either in combination with a mechanical pump foaming device or in combination with at least one propellant, and the active ingredient or additive is chosen from chitosan, chitosan salts, chitosan derivatives, cationic cellulose compounds, copolymers of vinylpyrrolidone, vinylcaprolactam and a basic acrylamide monomer or mixtures of these polymers.
21. The agent as claimed in claim 20, characterized in that the active ingredient or additive is chosen from chitosan, chitosan salts, copolymers of hydroxyethylcellulose and diallyldimethylammonium chloride (polyquaternium-4), copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide or mixtures of these polymers.
22. The agent as claimed in claim 20 or 21, characterized in that either copolymers of hydroxyethylcellulose and diallyldimethylammonium chloride (polyquaternium-4) or copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide are present.
23. The agent as claimed in one of claims 20 to 22, characterized in that either copolymers of hydroxyethylcellulose and diallyldimethylammonium chloride (polyquaternium-4), or copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide, or at least one chitosan salt are present.